

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512**RD&D Results Conducted under Commerce Energy, Hetch Hetchy, and SMUD
Programmatic Renewable Projects Funded by the PIER Program****Agenda****March 30, 2006****Location: Holiday Inn, 300 J Street, Downtown Sacramento****Purpose**

The purpose of this workshop is to provide PIER stakeholders, interested parties, and the general public an opportunity to be introduced to the research, development, and demonstration (RD&D) work conducted under Commerce Energy, Hetch Hetchy, and Sacramento Municipal Utility District (SMUD) renewable programs funded by the Public Interest Energy Research (PIER) program of the California Energy Commission.

7:30 - 8:30**Registration****8:30 - 8:45****Welcome and Keynote from the California Energy Commission**

- PIER Program Director: **Martha Krebs**

8:45 – 9:30**Overview of Programmatic Renewables Projects**

- SMUD Regen Overview – **Prab Sethi (CEC) and Bruce Vincent (SMUD)**
- Hetch Hetchy/SFPUC Overview – **Val Tiangco (CEC) and Ray Dracker (CRS)**
- Commerce Energy Overview – **Jessica Zhang (CEC) and Pat Lilly (Itron)**

9:30 – 12:15**Session 1: Photovoltaics****Moderators: Hassan Mohammed (CEC) and Bruce Vincent (SMUD)****SMUD Program-Related and Near-Term PV Projects for Photovoltaics - (20 minutes) Bruce Vincent from SMUD**

- Photovoltaic Markets and Technologies
- Performance Indexing of PV Systems
- Utility System Capacity and Customer Demand Value of PV
- Maximum Power Point Tracker Inverter Development (SMA America)
- Laminate & Batten Roofing System (UniSolar)

SMUD Market Connected PV Projects (45 minutes)

- Sun Roof Mounting System (Confirmed), **Marc Roper from Schott PV**
- Residential BIPV and other Developments, **Howard Wenger from PowerLight**
- Optimized Residential BIPV System, **Charles Korman from General Electric**

10:30 – 10:40 BREAK (10 minutes)

SMUD Long-term PV Projects (30 minutes)

- Non-Vacuum Thin-Film CIGS Modules, **Chris Eberspacher from NanoSolar**
- Slat Array Concentrator Development, **Sergey Vasylyev from SVV Technology Innovations,**

Commerce Energy Near-Term PV Projects (30 minutes):

- Comparative Photovoltaic System Performance Testing and Development of Consumer Confidence Guidelines, **Chuck Whitaker from BEW Engineering**

12:15 – 1:00 LUNCH - Special Address by Commissioner John Geesman

**1:00 – 3:00 Session 2: Biomass Projects
Moderators: Jessica Zhang (CEC) & Pat Lilly (Itron)**

Commerce Energy Biomass Projects (75 minutes):

- Biogas and PV Resource Market Potential Assessment and Project Prioritization **Bill Kitto from CH2MHill and Pat Lilly from Itron**
- Enhanced Biogas Production through Codigestion of Food Processing Wastes with Biosolids and Dairy Manure, **Fred Soroushian from CH2M Hill**
- Environmental Benefits of Dairy Manure Digestion Projects, **Wiley Barbour, ERT**
- Application of Ultrasound Technology at WWTP, **Fred Soroushian from CH2MHill**
- Gas Cleaning Alternatives for WWTPs, **Fred Soroushian from CH2MHill**

SMUD/ReGen Biomass Projects (30 minutes)

- Accelerated Anaerobic Decomposition for a Landfill, **Ramin Yazdani from Yolo County**
- Technology Assessment for Advanced Biomass Power Generation, **Robert Williams from UC, Davis**

Hetch/Hetchy- Distributed Biomass Power at Truckee-Donner PUD, Scott Haase from Mcneil (10 minutes)

3:00 – 3:10 BREAK

**3:10 – 4:45 Session 3: Other Renewable Projects
Moderators: Val Tiangco (CEC) and Ray Dracker (CRS)**

Geothermal

Hetch Hetchy Geothermal Projects (15 minutes)

- New Geothermal Resource Assessment and Upgrading Existing Geothermal Sites, **Jim Lovekin from GeothermEx,**

Wind

SMUD Wind Projects (10 minutes)

- Distributed Generation Geartrain for Megawatt Turbines, **Cliff Murley from SMUD**

Hetch Hetchy Wind Project (10 minutes)

- New Wind Site ID and Qualification, **Dale Osborn from DistGen**

Bulk Solar

Hetch Hetchy Bulk Solar - Solar Trough Project Analysis, (Dave Kearney) (10 minutes)

DG

Hetch Hetchy DG Assessments – Snuller Price from E3 (10 minutes)

Storage

Hetch Hetchy Energy Storage for Renewables – Dennis Woodford (10 minutes)

Transmission

Transmission for Renewables (40 minutes)

- Hetch Hetchy Summary of transmission analysis, out-of-state renewables and regional studies, **(Dennis Woodford, Dave Olsen & Ron Davis)**
- Renewable DG Transmission and Distribution Impacts Analysis, **Hank Zaininger from Zaininger Engineering Company (ZECO)**

4:45 - 5:00 **Summary & Wrap Up:** Ray Dracker from CRS,
Pat Lilly from Itron &
Bruce Vincent from SMUD

REGISTRATION

Please send RSVP to Ray Dracker at rdracker@resource-solutions.org by March 27, 2006, if you plan to attend.

For registration, please copy the simple registration form below and email it to Ray Dracker.

March 30, 2006, PIER Renewable RD&D Workshop

Name: _____
 Organization: _____
 Address: _____
 Tel: _____
 Email: _____